

SOV/10-59-3-9/32

The Surface Profile of the Antarctic Along the Line Mirnyy - South Pole - MacMurdo - Mirnyy

km/h: Altimeter readings were corrected by temperature readings, according to the standard formula which has been nomographed by the members of the expedition. Also, horizontal baric gradient was taken into account. The flight was started on 24 Oct 1958 and finished on 26 Oct/58. The aircraft IL-12 was commanded by V.M. Perov and piloted by B.S. Brod-kin. The route was: Mirnyy, Sovetskaya, South Pole, Birdmoore, MacMurdo, Mirnyy. Then the entire route is described as far as the profile of the ground is concerned. The differences between old readings and new Soviet measurements range between 17 and 150 m of greater height. Altogether, 109 (Mirnyy - South Pole), plus 18 (South Pole - Birdmoore), plus 82 (MacMurdo - Mirnyy) heights were measured and listed in the article. Also, schematic graphs of the heights are drafted. A depression falling below sea level was detected on the route between Mirnyy and Sovetskaya. The South Pole (a Soviet station is installed there) is said to lie about 20 or 30 m higher than American expeditions had estab-

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The Surface Profile of the Antarctic Along the Line Mirnyy - South Pole -
MacMurdo - Mirnyy

lished. There are 3 references, 2 of which are Soviet, and
1 American, 1 chart, 3 graphs and 3 tables.

ASSOCIATION: 3-ya Kontinental'naya antarkticheskaya ekspeditsiya AN SSSR
(the 3rd Continental Antarctic Expedition of the AS USSR),
Mirnyy.

Card 3/3

BUGAYEV, V.A., prof.; TOLSTIKOV, Ye.I., kand. geograf. nauk

Profile of the Antarctic slope between 100° and 105° E.
Inform. biul. Sov. antark. eksp. no.4:9-14 '59.

(MIRA 12:11)

1. T Sentral'naya aerologicheskaya observatoriya i glavnoye uprav-
leniye Severnogo morskogo puti.
(Antarctic regions--Altitudes)

3(4)

AUTHORS:

Bugayev, V.A., and Tolstikov, Ye.I.

COV/26-10-4-14/43

TITLE:

Flights Over Antarctica (Polety nad Antarktidoy)

PERIODICAL:

Priroda, 1959, Nr 4, pp 65-70 (USSR)

ABSTRACT:

Various remarkable flights over the Antarctic have been carried out by participants of the 3rd Joint Antarctic Expedition organized by the Akademiya Nauk SSSR (AS USSR). In this article the authors describe such a flight, a visit to the Australian Antarctic Station Mowson ("Mouson") 67°36' southern latitude, 62°53' eastern longitude. The plane started from Mirnyy along the coast and returned via the inland mountainous region south of the Claf-Prude Bay. The authors give a detailed description of the Australian Polar Station and its work. Furthermore, on their way back from Mowson, participants of the Expedition checked data on heights and depres-

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Flights Over Antarctica

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sions of the inland mountainous region and other natural phenomena, explored in December 1957 by Ye. I. Tolstikov, G.I. Golyshev, V.K. Boborykin and in 1958 by V.A. Bugayev, Kh.Ya. Zakiyev. There are 1 map and 1 graph.

Card 2/2

6

EUGAYEV, V.A., prof.

Jet streams in the atmosphere over the Mirnyy area. Inform.biul.
Sov.antark.eksp. no.12:20-23 '59. (MIRA 13:6)

1. TSentral'nyy institut prognozov.
(Mirnyy region, Antarctica--Jet stream)

ASTAPENKO, P.; AL'T, Zh. [Alt, J.]; ROPAR, N.; BUGAYEV, V.A., otv.red.;
KAPITSA, M.P., red.; MAKUNI, Ye.V., tekhn.red.

[Some aspects of atmospheric circulation in Antarctica in 1958]
Nekotorye voprosy tsirkulatsii atmosfery v Antarktike v 1958 g.
Moskva, Izd-vo Akad.nauk SSSR, 1960. 128 p. (II razdel programmy
MGG (meteorologiya), no.2). (MIRA 13:12)

1. Leningrad Hydrometeorological Institute, U.S.S.R. (for Asta-
penko). 2. Météorologie National, France (for Al't). 3. U.S.
Weather Bureau, Washington (for Ropar).
(Antarctica--Atmosphere)

BUGAYEV, V.A., prof.; TOLSTIKOV, Ye.I., kand.geograf.nauk

Basic features of the relief of eastern Antarctica. Inform. biul.
Sov. antark. eksp. no.16:11-15 '60. (MIRA 13:12)

1. TSentral'nyy institut prognozov i Glavnoye upravleniye Severnogo
morskogo puti.

(Antarctic regions--Altitudes)

BUGAYEV, V.A.

A valuable initiative ("Soviet expeditions to Antarctica during 1955-1959" by A.V.Nudel'man. Reviewed by V.A. Bugaev). Inform. biul. Sov. antark. eksp. no.17:41-42 '60. (MIRA 13:12)
(Antarctic regions--Russian exploration)
(Nudel'man, A.V.)

29657
S/169/61/000/005/011/049
A005/A130

39400

AUTHOR: Bugayev, V.A.

TITLE: The magnitude of temperature correction incident to calculation of geopotential at the 700 mb surface

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 5, 1961, 48, abstract 5 B 400. (Inform. byul. Sov. antarkt. ekspeditsii, 1960, no. 22, 36-39)

TEXT: The author proposes a method for calculating the geopotential of the 700 mb surface from pressure and temperature at arctic stations in the absence of radio-sounding data. A correction is introduced into the average layer temperature used for the calculation, which is determined from the temperature measured at the station. The correction is determined empirically for each station individually. From the corrected average layer temperature and the pressure near the ground the dynamic thickness ΔH_{700}^{Po} of the layer must then be calculated by means of the barometric

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The magnitude of temperature correction ...

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height formula. Then $H_{700} = H - \Delta H_{700}^{Po}$, where H is the dynamic altitude of the station. A table of the temperature corrections at different antarctic stations is presented for temperature intervals of 10° .

R. Maslennikova

[Abstractor's note: Complete translation.]

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S/169/61/000/010/001/053
D228/D304


AUTHOR: Bugayev, V. A.

TITLE: Determining the altitude of the Komsomol'skaya station

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 10, 1961, 2,
abstract 10A5 (Inform. byul. Sov. antarkt. ekspeditsii,
no. 23, 1960, 24-27)

TEXT: On the basis of meteorological observations in the first half of 1958, the difference in the elevations of Komsomol'skaya and Pionerskaya was determined by different methods: (1) From the mean-monthly pressure and temperature at both stations for January - June, with the approximate calculation of the influence of the near-surface inversion of temperature: an altitude difference equal to 707 gp. m. was obtained; (2) from observations on 21 days in January 1958, when anticyclonic weather was observed: an altitude difference equal to 704 gp. m. was obtained; (3) from the data of 31 radio-sounding ascents in March - April 1958, at Pionerskaya and from

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BUGAYEV, V.A., prof., otv. red.; SHUMSKIY, P.A., prof., red.; GUSEV, A.M.,
prof., red.; LAPINA, I.Ya., red.; MEL'NIKOVA, N.B., red. izd-va;
GOLUB', S.P., tekhn. red.

[Antarctica; reports of the commission] Antarktika; doklady komissii
1960. Moskva, Izd-vo Akad.nauk SSSR, 1961. 85 p. (MIRA 14:12)

1. Akademiya nauk SSSR. Mezhvedomstvennaya komissiya po izucheniyu
Antarktiki.

(Antarctic regions)

BUGAYEV, V. A.

Doc Geog Sci - (diss) "Studies on the dynamic climatology of Central Asia." Moscow, Gidrometeoizdat, Moscow Division, 1961. 96 pp with diagrams; maps; 3 pp of diagrams and maps; (Main Board of Hydrometeorological Services under the Council of Ministers USSR, Central Inst of Forecasts); 450 copies; free; bibliography on pp 91-95 (99 entries); (KL, 7-61 sup, 223)

S/050/61/000/001/001/007
B012/B058

AUTHOR: BUGAYEV, V. A.

TITLE: INFLUENCE OF THE ANTARCTICA ON THE CLIMATE OF THE SOUTHERN
HEMISPHERE

PERIODICAL: METEOROLOGIYA I GIDROLOGIYA, 1961, No. 1, pp. 3-9

TEXT: A COMPARISON BETWEEN TEMPERATURE CONDITIONS IN THE ARCTIC AND ANT-
ARCTIC REGIONS SHOWS THAT THE COOLING EFFECT OF THE ANTARCTICA IS GREATER
THAN THAT OF THE CENTRAL ARCTIC REGIONS. CALCULATIONS BY G. V. GRUZA
(REF. 1) ARE MENTIONED IN THIS CONNECTION. THIS FACT MAKES MANY SCIENTISTS
PRESUME THAT THE ANTARCTICA IS SUCH A GIGANTIC COOLER THAT ITS INFLUENCE
DETERMINES THE LOWER TEMPERATURES OF THE SOUTHERN HEMISPHERE AS A WHOLE.
THE RESULTS OF THE STUDIES OF THE THIRD SOVIET ANTARCTIC EXPEDITION DURING
THE INTERNATIONAL GEOPHYSICAL YEAR MAKE IT POSSIBLE TO ANSWER THIS PROBLEM
IN A SOMEWHAT DIFFERENT WAY. REGULAR PROBING OF THE ATMOSPHERE AT THE
STATIONS SITUATED INSIDE THE CONTINENT, AS WELL AS FLIGHTS ACROSS IT
SHOWED THAT THE STRATUM OF VERY LOW TEMPERATURES IS NOT HIGH. THIS THIN,

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INFLUENCE OF THE ANTARCTICA ON THE CLIMATE
OF THE SOUTHERN HEMISPHERE

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COOL LAYER CAN BE OF NO GREAT EFFECT IN THE COOLING OF THE WATER AREA OF OCEANS BORDERING THE ANTARCTICA, IF IT IS INCLUDED IN A NORTHWARD CIRCULATION. THE ROLE OF TROPOSPHERIC CONTINENTAL AIR ABOVE THE ANTARCTICA, WHICH LIES ABOVE THE PLANETARY BOUNDARY LAYER AND IS SUFFICIENTLY COLD COMPARED WITH ARCTIC AIR, IS STUDIED NEXT. THE ADIABATIC TEMPERATURE RISE OF AIR SINKING ALONG THE SLOPES OF THE ANTARCTIC ICECAP IS NOTE. THIS TEMPERATURE RISE VARIES FROM 10 TO 20°C AND DEPENDS ON THE ACTUAL CONDITIONS OF CIRCULATION. THIS IS ILLUSTRATED BY A PROBING IN MIRNY. ON THE BASIS OF THE OBSERVATIONS IT IS STATED THAT THE HIGH ICECAP OF THE ANTARCTICA FORMS THE BASIS FOR THE DEVELOPMENT OF THE COLDEST TROPOSPHERIC AIR MASSES OF THE GLOBE OVER THE ANTARCTICA; AT THE SAME TIME, IT CREATES THE ASSUMPTIONS FOR THE ADIABATIC TEMPERATURE RISE OF AIR FLOWING FROM THE ANTARCTICA. FOR THIS REASON COLD INFLUXES FROM THE ANTARCTICA WITH SEA-LEVEL TEMPERATURES AS LOW AS IS THE CASE FOR MANY CONTINENTAL INFLUXES FROM THE ARCTIC REGIONS (UP TO -35°, -45°) ARE NEVER OBSERVED IN THE SOUTHERN HEMISPHERE. THE TEMPERATURE OF THE LATTER DEPENDS ON THE INFLUENCE OF THE ANTARCTICA RATHER THAN ON THE WATER SUBSTRATE. IN WINTERTIME, THE TEMPERATURES OVER THE OCEAN IN MEDIUM AND HIGHER LATITUDES IS THEREFORE HIGHER IN THE

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Influence of the Antarctica on the Climate
of the Southern Hemisphere

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B012/B058

Southern Hemisphere than in the Northern Hemisphere, and vice versa in summer. The reason for the cold in the Southern Hemisphere is not because it is cooled by the Antarctica, but vice versa the Antarctic conditions are thus, because it is cold on the oceanic Southern Hemisphere. A certain analogy with Greenland is pointed out. The existence of Greenland icecap can be explained by the polar position of Greenland, its size, and the fact that Greenland is surrounded by the ocean to a great extent. Finally, it is stated that the immediate cooling effect of the Antarctica on the climate of the Southern Hemisphere is not great. This does not mean, however, that the existence of the Antarctica is of no effect on atmospheric circulation over the hemisphere. There are 5 figures and 2 Soviet references. ✓

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BUGAYEV, V.A.

"The Soviet expeditions to Antarctica, 1958 - 1960" by A.V.
Nudel'man. Reviewed by V.A. Bugaev. Izv. AN SSSR. Ser. geog.
no.6:148-149 N-D '61. (MIRA 14:12)
(Antarctic regions--Russian exploration)
(Nudel'man, A.V.)

GAYGEROV, Semen Semenovich; BUGAYEV, V.A., doktor geogr. nauk, otv.
red.; BEREZOVA, A.S., red.; POLYAKOVA, T.V., tekhn. red.

[Problems of aerological structure, circulation and climate of
the free atmosphere in the central Arctic and in the Antarctic]
Voprosy aerologicheskogo stroeniia, tsirkuliatsii i klimata
svobodnoi atmosfery Tsentral'noi Arktiki i Antarktiki. Moskva,
Izd-vo Akad. nauk SSSR, 1962. 317 p. (Akademiia nauk SSSR. Mez-
vedomstvennyi komitet po provedeniiu Mezhdunarдного geofiziche-
skogo goda. II razdel programmy MGG: Meteorologiya, no.4)

(MIRA 15:12)

(Arctic regions—Meteorology)
(Antarctic regions—Meteorology)

BUGAYEV, V.A., prof.; KATS, A.L., doktor geograficheskikh nauk

Is the climate changing. Starsh.-serzh. no.1:38-39 Ja '62.
(MIRA 15:4)

1. Direktor TSentral'nogo instituta prognozov pogody (for Bugayev).
2. Nachal'nik sektora dolgosrochnykh prognozov pogody TSentral'nogo instituta prognozov pogody (for Kats).
(Climatology)

S/169/63/000/005/030/042
D263/D307

AUTHOR: Bugayev, V.A.

TITLE: The present state and perspectives of the synoptic method of weather forecasting

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 3, 1963, 46, abstract 3B265 (Tr. Vses. nauchn. meteorol. soveshchaniya T.I. L., Gidrometeoizdat, 1962, 71-81)

TEXT: The volume of information which may be obtained by modern synoptic methods is very large and includes near-ground high-altitude and special synoptic charts. A series of observations is however still used unsatisfactorily. It is necessary to utilize more fully in synoptic practice aerological data, radar observations, and meteorological Earth satellites. For the gathering and distribution of meteorological and aerological information tele-links find wide application, introducing facsimile transmissions. Application of the latter should be extended, and hence other methods of transmitting meteorological summaries should be superseded. An objective

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D263/D307

The present state ...

analysis of meteorological fields is developed; it is necessary to develop an objective analysis of frontal divisions. Qualitative and quantitative principles of the prognosis of the synoptic situation, obtained from the calculation of the equations of hydrodynamics, allow fairly successful forecasting of the baric relief at various levels. Successes of hydrodynamic forecasting methods pushed to the second place such considerably important problems as frontal analysis, cyclogenesis, and weather forecasts. To complete a weather forecast on the basis of the prognosis of a synoptic situation, it is necessary to compile a prognosis of condensation phenomena, weather in the ground-adjacent layer, take into account the influence of orography on synoptic processes and to study local characteristics. It is necessary to relate the problems of short-term forecasts with studies of atmospheric physics, first of all with the physics of the ground-adjacent layer; studies of mesoprocesses are of interest. Development of aviation and other means of transport and of national economy presented a series of demands to prognostic meteorology and give impetus to further development of short-range weather forecasts. There are however as yet no sufficiently successful

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forecasts of the separate phenomena and elements, so that no fundamental improvements in the reliability of short-range weather forecasts is yet noted.

[Abstracter's note: Complete translation]

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S/639/62/000/000/002/002
B144/B186

AUTHOR: Bugayev, V. A.
TITLE: Types of vertical temperature distribution above the inland regions of Antarctica
SOURCE: Antarktika; doklady Komissii [t. 2] 1961. Mezhdured. kom. po izuch. Antarktiki AN SSSR. Moscow, Izd-vo AN SSSR, 1962, 12 - 17

TEXT: Aerological measurements made by the Vostok and Sovetskaya stations in 1958 and 1959 (April to June) were used to plot the height-versus-temperature curves from 2 to ~22 km above sea level. These Antarctic inland stations were chosen to eliminate the effect of turbulent air flows, condensation, evaporation, and cold advection. Moreover, all measurements were excluded from which advection of heat was evident in the light of a decrease of the winter temperature inversion. The temperature curve of the radiation equilibrium was plotted by averaging the measurements taken per 0.5 km up to 5 km and from 8 to 10 km, and per km for the remaining heights. The temperature curves in the second half of April and in May were fairly similar in the troposphere, with a very marked inversion.
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Types of vertical temperature ...

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B144/B186

sion from approximately -68 to -43°C . However, the inversion above the tropopause decreased from April onward and disappeared in the second half of May owing to the sharper drop of temperature in the stratosphere. In June, the tropospheric inversion maximum reached not more than -48°C , and the temperatures in the stratosphere were much lower than in the other periods. The increasing height and falling temperature of the tropopause during the period investigated are attributed to radiation effects. This research will be continued to cover the entire year. There are 2 figures and 1 table.

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BUGAYEV, V.A., prof.

What is the weather tomorrow, comrade space? Znan.-sila
37 no.9:25-26 S '62. (MIRA 15:12)
(Weather forecasting)

BUGAYEV, V.A., prof.

Atmospheric temperature in central Antarctica. Priroda 51
no.5:97-100 My '62. (MIRA 15:5)

1. Tsentral'nyy institut prognozov, Moskva.
(Antarctic regions—Atmospheric temperature)

BUGAYEV, V.A., red.; POKROVSKAYA, T.V., red.; VAYTSMAN, A.I., red.;
BRAYNINA, M.I., tekhn. red.

[Transactions of the All-Union Scientific Meteorological
Conference] Trudy Vsesoiuznogo nauchnogo meteorologicheskogo
soveshchaniia. Leningrad, Gidrometeoizdat, Vol.3. [Section of
the synoptic meteorology] Sektsiia sinopticheskoi meteorologii.
Pod red. V.A.Bugaeva i T.V.Pokrovskoi. 1963. 353 p.

(MIRA 16:10)

1. Vsesoyuznoye nauchnoye meteorologicheskoye soveshchaniye.
2. Glavnoye upravleniye gidrometeorologicheskoy sluzhby pri
Sovete Ministrov SSSR (for Pokrovskaya).
(Meteorology)

BUGAYEV, V.A., doktor geogr. nauk, otv. red.; TOLSTIKOV, Ye.I.,
kand. geogr. nauk, otv. red.; ZHITNIKOVA, S.A., red.;
GUS'KOVA, O.M., tekhn. red.

[Collected articles] Sbornik statei. Moskva, Izd-vo AN
SSSR. No.5. [Meteorological research] Meteorologicheskie
issledovaniia. 1963. 106 p. No.6. [Research on the
climatology of noctilucent clouds] Issledovaniia po kli-
matologii serebristyykh oblakov. 1963. 83 p.

(MIRA 16:10)

1. Akademiya nauk SSSR. Mezhdunarodnyy komitet po
provedeniyu Mezhdunarodnogo geofizicheskogo goda. II raz-
del programmy MGG: Meteorologiya.

(Clouds)

BUGAYEV, V.A.

"Soviet expeditions in the Antarctic from 1959 to 1961" by
A.V. Nudel'man. Meteor. i gidrol. no. 5:56-57 My '63. (MIRA 16:5)

(Antarctic regions)
(Nudel'man, A.V.)

BUGAYEV, V.A., prof.

"Effect of the Carpathians on the weather." Meteor. i gidrol.
no.3:56-57 Mr '64. (MIRA 17:3)

BUGAYEV, V.A., prof., otv. red.; SHUMSKIY, P.A., prof., red.;
GUSEV, A.M., prof., red.; LAPINA, I.Ya., red.

[Antarctics; reports of the Commission, 1963] Antarktika;
doklady komissii, 1963. Moskva, Nauka, 1964. 174 p.
(MIRA 17:11)

1. Akademiya nauk SSSR. Mezhduevdomstvennaya komissiya po
izucheniyu Antarktiki.

BUGAYEV, V.A., prof.; DZHORDZHION, V.A., prof.

Sergei Petrovich Khromov; 1904 - ; on his 60th birthday.
Meteor. i gidrol. no. 8:55-57 Ag '64 (MIRA 17:8)

BUGAYEV, V.A., doktor geograf. nauk, prof.

Climatic fluctuations and climate-producing processes. Meteor.
i gidrol. no.12:3-8 D '64 (MIRA 18:1)

1. Tsentral'nyy institut prognozov.

MININA, V.A., doktor geograf. nauk, prof.; MININA, L.S., kand. geograf. nauk

Bank structure of a cloud cover. Meteor. i gidrol. no. 5:29-36
My '65. (MIRA 18:4)

1. Tsentral'nyy institut prognozov.

USPENSKIY, B.D., doktor fiz.-mat. nauk, prof.; BELOUSOV, S.L., kand. fiz.-mat. nauk; PYATYGINA, K.V.; YUDIN, M.I.; MERTSALOV, A.N., kand. fiz.-mat. nauk; DAVYDOVA, O.A.; KUPYANSKAYA, A.P.; PETRICHENKO, I.A.; MORSKOY, G.I.; TOMASHEVICH, L.V.; SAMOYLOV, A.I.; ORLOVA, Ye.I.; DZHORDZHIO, V.A.; PETRENKO, N.V.; DUBOVYY, A.S.; ROMOV, A.I.; PETROSYANTS, N.A.; GLAZOVAYA, T.F.; BEL'SKAYA, N.N.; CHISTYAKOV, A.D.; GANDIN, L.S.; BURTSEV, A.I.; MERTSALOV, A.N.; BAGHOVYY, N.A.; BELOV, P.N.; ZVEREV, A.S., retsenzent; SIDENKO, G.V., red.; DUBENTSOV, V.R., kand. fiz.-mat. nauk, nauchn. red.; SAGATOVSKIY, N.V., red.; BUGAYEV, V.A., doktor geogr. nauk, prof., red.; ROGOVSKAYA, Ye.G., red.

[Manual on short-range weather forecasts] Rukovodstvo po kratkosrochnym prognozam pogody. Leningrad, Gidrometeoizdat. Pt.1. Izd.2., perer. i dop. 1964. 519 p. (MIRA 18:1)

1. Moscow. Tsentral'nyy institut prognozov.

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BOOK EXPLOITATION

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551.509.31(022) ^{B+1}

Moscow. TSentral'nyy institut prognozov

Manual on short-range weather forecasting (Rukovodstvo po kratkosrochny prognozam pogody) pt. 1. 2d ed., rev. and enl. Ed. by V. A. Bugayev and others. Leningrad, Gidrometeoizdat, 1964. 519 p. illus., biblio. Errata slip inserted. 6000 copies printed. (At head of title: Glavnoye upravleniye gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR)

TOPIC TAGS: weather forecasting, atmospheric fronts, baric formation, weather map analysis, synoptic position

PURPOSE AND COVERAGE: This book is part 1 of the 3-part second edition of the manual for short-range weather forecasting. This first part contains the fundamentals of the theory and description of practical methods of forecasting the synoptic situation. The manual is intended for a wide range of specialists working with the Main Administration of the Hydrometeorological Service and other institutions. This edition is more comprehensive than the previous editions particularly in such fields as the theory of the changes

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of atmospheric pressure, wind, vertical movements, and air temperature. Several new chapters have been added, such as ageostrophic procedures of weather forecasting, objective analysis of meteorological fields, and application of the methods of mathematical statistics. This part is the collective work of 24 authors. There are 118 Soviet references.

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SUB CODE: ES

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OTHER: 002

KC
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BUGAYEV, V.A., prof., otv. red.; SHUMSKIY, P.A., prof., red.;
GUSEV, A.M., prof., red.; LAPINA, I.Ya., red.

[The Antarctic; reports of the Commission, 1964] Antarktika:
doklady komissii, 1964. Moskva, Nauka, 1965. (MIRA 18211)

SOURCE CODE: UR/0050/66/000/008/0003/0011

ACC NR: AP7004585

AUTHOR: Bugayev, V. A. (Academician AN UzSSR); Belousov, S. L. (Candidate of
physicomathematical sciences)

ORG: Hydrometeorological Scientific Research Center SSSR (Gidrometeorologicheskly
nauchno-issledovatel'skiy tsentr SSSR)

TITLE: Numerical methods of weather forecasting in the work of the USSR Hydro-
meteorological Service

SOURCE: Meteorologiya i gidrologiya, no. 8, 1966, 3-11

TOPIC TAGS: weather forecasting, weather map

ABSTRACT: Numerous articles on numerical forecasting appear in the Soviet
meteorological literature, but these deal mostly with the theoretical
aspects and no good studies have appeared indicating exactly to what
extent numerical weather forecasting is actually used. As a result, the
authors complain that too little is known of how widely numerical fore-
casting actually is being used. The article cited below fills this gap.
For example, long-range mean monthly temperature anomalies are predicted
for the northern hemisphere on the basis of the precomputed circulation
in the middle troposphere and taking into account the principal climate-
forming factors. The forecasts are prepared in the Section on Planetary
Atmospheric Dynamics and Hydrodynamic Long-Range Forecasts of the Hydro-
meteorological Center USSR monthly, 40 days in advance. The same section

UDC: 551.509.313

ACC NR: AP7004585

routinely prepares long-range (up to 6 days in advance) forecasts of the AT700 and AT300 charts for the northern hemisphere using a two-level model. Three times a week the pressure field for the northern hemisphere is predicted using a three-level model; this includes forecasting of the surface, AT700 and AT500 charts for up to 5 days in advance. In fact, up to 50 different charts are prepared daily and some of them, on an experimental basis, are being drafted directly onto blanks by a special attachment to a computer. Most of the charts are disseminated to the field at once. A map is shown which indicates regions for which short-range forecasts is made. Table 1 is exceptionally valuable: it gives the forecasting models used, the initial data employed for each such model, the region for which the forecast is prepared, the number of hours required for producing a chart, computer time required, type of forecast, and frequency with which the forecast is prepared. All forecasts are evaluated to determine their success and analyze reasons for inaccuracies. Comparable charts from other countries are compared for evaluating the successes of Soviet meteorologists in comparison with those of other countries. The exchange of charts between Washington and Moscow is discussed briefly. Numerical forecasting work at the Novosibirsk, Tashkent, Leningrad and Rostov-on-Don weather bureaus is described. A special section deals with the numerical forecasting objectives of Soviet meteorologists in both long- and short-range forecasting. Orig. art. has: 1 figure and 4 tables. [JPRS: 38,460]

SUB CODE: 04 / SUBM DATE: 01Apr66

Card 2/2

ACC NR: AT6036328 (N) SOURCE CODE: UR/3199/66/000/011/0158/0169

AUTHOR: Bugayev, V. A.; Shlyakhov, V. I.

ORG: none

TITLE: Observations made during flight, over Wilkes Land in the Antarctic

SOURCE: AN SSSR. Mezhdudedomstvennyy geofizicheskiy komitet. Meteorologicheskoye issledovaniya, no. 11, 1966, 158-169

TOPIC TAGS: actinometry, geophysics research facility, aeronautic meteorology, aerial survey/ Antarctic exploration

ABSTRACT: During the Third Soviet Antarctic Expedition in the IGY period, an observation flight was made with an IL-12 (N-140) aircraft over the hinterland of the Antarctic and to the Wilkes Land never before visited. The relief of the area was studied, and actinometric and other observations were made. The results of the study of materials collected during the flight are presented in the article, which includes a map. Orig. art. has: 5 figures. [Authors' abstract]

[GC]

SUB CODE: 01, 04/SUBM DATE: none/ORIG REF: 007/

Cord 1/1

UDC: 551.501(082)

ACCESSION NR: AP4042511

S/0109/64/009/007/1136/1142

AUTHOR: Bugayev, V. A.

TITLE: Multichannel serial detection with a rectangular lower threshold

SOURCE: Radiotekhnika i elektronika, v. 9, no. 7, 1964, 1136-1142

TOPIC TAGS: detection, detection procedure, radar detection, radar detection theory

ABSTRACT: The efficiency of multichannel serial procedures for detecting a signal when the constant lower threshold is replaced by a rectangular threshold is considered. The characteristics of this procedure, which materializes the method of single intersections when a low probability of spurious operation is permitted, are determined. The rectangular threshold is found to considerably improve these characteristics. It is shown that, with 100-1,000 channels, the rectangular threshold cuts the average observation time by 30-50% as compared to

Cord 1/2

ACCESSION NR: AP4042511

a constant threshold. The new formulas may be used in calculating the efficiency of multichannel serial procedures in the detection of a precisely known signal; they can also be used with other types of signals in the case of a large number of stored signals. Orig. art. has: 5 figures and 18 formulas.

ASSOCIATION: none

SUBMITTED: 23Apr63

ATD PRESS: 3079

ENCL: 00

SUB CODE: DC, EC

NO REF SOV: 006

OTHER: 001

Card 2/2

L 10354-66 EWT(d)/FSS-2

ACC NR: AP5026895

SOURCE CODE: UR/0109/65/010/010/1759/1764

AUTHOR: Bugayev, V. A.

ORG: none

TITLE: Multichannel sequential detection with linearly increasing lower threshold

SOURCE: Radiotekhnika i elektronika, v. 10, no. 10, 1965, 1759-1764

TOPIC TAGS: signal reception, multichannel detection, signal noise separation

ABSTRACT: The efficiency of signal detection is analyzed when the accumulated value of the likelihood-ratio logarithm in each channel is compared to a constant upper threshold A and to a variable lower threshold $B(t) = B_0 + kt$ ($k > 0$); independent decisions are reached in each channel. The analysis shows that, with a number of resolution elements $m = 100-10000$, the above variable threshold reduces the average no-signal analyzing time to $2/3$ of that necessary in the case

Card 1/2

UDC: 621.391.161

L 10354-66

ACC NR: AP5026895

of constant lower threshold. With $m \rightarrow \infty$, the efficiency of the variable-threshold procedure is $1/2$ and that of constant-threshold procedure is $1/4$ of the classical-procedure efficiency. With high m values, the efficiency of the sequential procedure falls off slowly (with $m = 10000$, the sequential procedure with optimal lower-threshold slope has an analysis time roughly equal to $2/3$ that of the classical procedure). The above data refers to the case of weak signals and low probability of errors. The efficiency of the above sequential procedure is practically the same in the case of optimal linearly variable threshold and in the case of square threshold; it is lower than the efficiency of the (Markus and Sverling) procedure that involves pooling of individual-channel data. Orig. art. has: 1 figure, 22 formulas, and 2 tables.

SUB CODE: 17 / SUBM DATE: 17Jul64 / ORIG REF: 010 / OTH REF: 002

PC
Card 2/2

BUGAYEV, Yu.G., mladshiy nauchnyy sotrudnik

Synchronous barometric leveling. Inform. biul. Sov. antark.
eksp. no.51:33-36 '65. (MIRA 18:9)

1. Devyataya sovetskaya antarkticheskaya ekspeditsiya.

L 05205-67 ENI(1) GW

ACC NR: AP7000757

SOURCE CODE: UR/0006/66/000/004/0010/0014

AUTHOR: Bugayev, Yu. G.

ORG: none

TITLE: Experience with work with a pulsed-sound range finder in Antarctica

SOURCE: Geodeziya i kartografiya, no. 4, 1966, 10-14

TOPIC TAGS: polygonometry, geodesy / Antarctica

ABSTRACT: A polygonometric traverse, shown in a map, was run by Soviet geodesists in January-February 1964 in Antarctica as a basis for gravimetric and glaciological work on that continent. An RDG pulsed-sound rangefinder was used. The total length of the traverse was 1,033 km; the mean length of a side was about 9 km; the minimum length was 2 km; maximum length was 15 km; mean elevation of stations above sea level was about 3,800 m. Prior to the expedition the pulsed-sound rangefinders were tested in a cold chamber at a temperature of -50° . A number of changes had to be introduced to ensure a successful operation under Antarctic conditions. Measurements were made from atop the cross-country vehicles; the observers were protected by a canvas enclosure mounted on a hexagonal frame with a window for making observations. The peculiarities of operations in Antarctica are described. The accuracy of distance measurement could not be evaluated from the nonclosures of the polygonometric traverse because the end points were determined from astronomical observations. A geodetic quadrilateral was constructed at the Pole of Relative Inaccessibility for

Card 1/2

UDC: 528.021.6(99)

L 05205-67

ACC NR: AP7000757

comparative evaluation of accuracy. It was found from the free term of the horizon equation that without allowance for systematic errors the relative error of a measured mean side of a quadrilateral (D equal 1,467.5m) is about 1:70,000. This is completely comparable to the accuracy obtained in distance measurements in the European parts of the USSR. The distance measurements in Antarctica revealed that the RDG pulsed-sound range finder can be used without additional warming or revamping at a temperature close to -50°C , a pressure of about 420 mm Hg and a humidity close to zero. Orig. art. has: 3 figures. [JPRS]

SUB CODE: 08 / SUBH DATE: none

Card 2/2 *gd*

L 38687-66 EWT(1) GW
 ACC NR: AT6016944 (A) SOURCE CODE: UR/2639/65/000/000/0053/0060
 AUTHOR: Lazarev, G. Ye.; Ushakov, S. A.; Bugayev, Yu. G. (Professor) 44
 ORG: none 5+1
 TITLE: Methods and basic results of geodetic and gravimetric investigations of the
 central sector of eastern Antarctica
 SOURCE: AN SSSR. Mezhdunarodstvennaya komissiya po izucheniyu Antarktiki. Antarktika
 (The Antarctic); doklady komissii, 1964. Moscow, Izd-vo Nauka, 1965, 53-60
 TOPIC TAGS: gravimetric survey, geodetic survey, sea ice
 ABSTRACT: Measurements (begun in 1959) of the altitudes of the ice surface and the
 force of gravity in Antarctica are described. Absolute altitudes were calculated from
 the mean sea level of the Davis Sea; the Vodomernyy bench mark, served as the basic
 land station. In the gravimetric survey, differences in the force of gravity were mea-
 sured using several gravimeters in order to minimize observational errors. The er-
 rors along the Mirnyy-Komsomols'kaya, Komsomol'skaya-Sovetskaya-Pole of Inaccessibili-
 ty, Vostok-Polyus, routes do not exceed ± 2 , ± 1 , ± 2 , ± 4 mgal, respectively. The er-
 rors in the determination of the force of gravity at Mirnyy, Pionerskaya, Komsomol'-
 skaya, Vostok, and Sovetskaya do not exceed $\pm 2,5$ mgal. The geodetic observations
 show that 1) daytime is the best time for geodetic surveys because refraction is at
 Card 1/2

L 38687-66

ACC NR: AT6016944

a minimum; and 2) the errors in the determination of mean altitude values (employing direct and reverse leveling) are of a random nature. The gravimetric data show the presence of several anomalies of positive and negative types, ranging from 30 to 100 mgal. Analysis of the data revealed the following relief zones: 1) from the coast line to 68° S, relatively small highs (up to 400 m) and small depressions (to -300 m); 2) 68°-71° S, sizable mountains (up to 1000 m) and depressions; 3) 71°-75° S and 87°-100°E, where the relief of hard rocks is almost at sea level with extreme altitude variations of +500 m to -150 m. Orig. art. has: 1 table, 2 figures.

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 006/ OTH REF: 001

Cord 2/2 *LC*

ACC NR: AT0010037

(A)

SOURCE CODE: HR/3174/65/000/051/0033/0036

AUTHOR: Bugayev, Yu. G. (Junior Research Associate)

ORG: Ninth Soviet Antarctic Expedition

TITLE: Synchronous barometric levelling

SOURCE: Sovetskaya antarkticheskaya ekspeditsiya, 1955-. Informatsionnyy byulleten', no.51, 1965, 33-36

TOPIC TAGS: surveying, antarctic surveying, levelling, barometric levelling, barometer/Fuss aneroid barometer

ABSTRACT: The paper discusses improvements in barometric levelling developed for terrain height surveying over long traverses (over 800 km) in the Antarctica. Two mobile stations (a tractor and a snowmobile) were equipped each with three Fuss aneroids, ancillary instrumentation and a two-way radio. After an initial measurement cycle by both stations located at a common point, using all 6 aneroids, the snowmobile went 10 km forward, stopped, marked the spot, communicated its readiness, and both stations synchronously recorded the time, barometric pressure and temperature. The snowmobile station then moved ahead a comparable distance; the tractor arrived at the previous place of the snowmobile and synchronous measurements were made again. The cycle was repeated as needed. The method permitted compensation for the time slope of the barometric pressure. The method was used on the traverse between Polyus Nepristupnosti -

Card 1/2

ACC NR: AT6019037

Molodezhnaya, 2400 km long. The exploration lasted 46 days; the average air temperature was -40°C , and the average pressure 460 mm Hg. Height differences were computed using the formula:

$$h_{1,2} = (8000/B_{av})(1 + \alpha t_{av})(B_2 - B_1) \quad (1) \quad \text{where -}$$

$h_{1,2}$ - height of point 1 over point 2, in meters; $B_{av} = (B_1 + B_2)/2$ - average air pressure based upon aneroid indications at the first and the second point; $t_{av} = (t_1 + t_2)/2$ - average temperature of the two points; $\alpha = 1/273$ - gas expansion coefficient.

Errors of the barometric levelling were determined by comparison with a precise conventional geodetic survey of the terminal heights. The total error of the barometric levelling was 140 meters. In view of the low precision of the rugged aneroids (± 1.2 mm Hg) and on the basis of a theoretical development of the probable RMS errors, this error was considered permissible. The synchronous barometric levelling is found to be more precise than levelling by direct comparison between a mobile and a base barometric stations. Good communications are essential. Orig. art. has 4 formulas, 1 table.

SUB CODE: 04, 08/

SUBM DATE: 6Jul64/

ORIG REF: 001

Cord

BUGAYEVA, A.M.; PERSOVA, Y.G.

Frosts in the Tatar A.S.S.R. Sbor.rab.po sinop. no.2:110-133
'58. (MIRA 12:6)

1. Kazanskoye gidrometeorologicheskoye byuro.
(Tatar A.S.S.R.--Frost)

GINDIN, L.M.; BOBIKOV, P.I.; KOUBA, E.F.; BUGAYEVA, A.V.

Distribution of metal soaps in exchange extraction. Zhur. neorg.
khim. 5 no.10:2366-2373 0 '60. (MIRA 13:10)

1. Noril'skiy gornometallurgicheskiy kombinat im.A.P.Zavenyagina.
(Soap) (Extraction (Chemistry))

GINDIN, L.M.; BOBIKOV, P.I.; KOUBA, E.F.; BUGAYEVA, A.V.

Separation of metals by exchange extraction with fatty acids under
the influence of alkali. Zhur. neorg. khim. 5 no.8:1868-1875 Ag
'60. (MIRA 13:9)

1. Noril'skiy gornometallurgicheskiy kombinat im.A.P.Zavenyagina.
(Acids, Fatty) (Metals--Analysis) (Extraction (Chemistry))

GINDIN, L.M.; BOBIKOV, P.I.; KOUBA, E.F.; BUGAYEVA, A.V.

Exchange interaction of soaps with mineral acid salts. Zhur.neorg.-
khim. 6 no.12:2797-2804 D '61. (MIRA 14:12)

1. Noril'skiy gornometallurgicheskii kombinat imeni A.P.Zavenyagina.
(Metallic soaps) (Acids, Inorganic)

GINDIN, L.M.; BOBIKOV, P.I.; PATYUKOV, G.M.; ROZEN, A.M.; KCUBA, E.F.;
BUGAYEVA, A.V.

Separation of ~~mixtures~~ of metals by exchange extraction with
carboxylic acids. Ekstr.; teor., prim., app. no. 2:87-111 '62.
(Metals) (Extraction (Chemistry)) (Acids, Organic) (MIRA 15:9)

BUGAYEVA. A. Z.

USSR/Medicine - Blood Transfusion Mar/Apr 52

"Transfusion of Solutions of Dry Blood Plasma or Serum Together With Glucose by the Drip Method in Toxic Conditions of Children," A. Z. Bugayeva, Chair of Children's Diseases, Omsk Med Inst ment M. I. Kalinin

"Pediatrya" No 2, pp 50-54

In toxic conditions of children accompanied by pronounced thickening of the blood, transfusion of dry plasma or serum with glucose by the drip method lowers the hemoglobin content and erythrocyte number in the 1st days after the transfusion and subsequently raises them up to normal.
207T61

USSR/Medicine - Blood Transfusion Mar/Apr 52
(Contd)

When this method is used for treating children who have dysentery accompanied by hypoprote~~in~~emia, the protein content of their blood serum is raised.

207T61

ANDREYEVA, A.G.; BUGAYEVA, E.I.

Changes in the proteinogram in anicteric Botkin's disease.
Zdrav. Bel. 9 no.8:20-21 Ag'63 (MIRA 17:3)

1. Iz kafedry infektsionnykh bolezney (zav - prof. V.V.
Kosmachevskiy) Leningradskogo sanitarno-gigiyenicheskogo me-
ditsinskogo instituta.

KOLBANOVSKAYA, A.S.; MIKHAYLOV, V.V.; Prinimali uchastiye: YEFIMOVA, L.I.;
DAVIDOVA, A.R.; GOLOVKINA, O.K.; BUGAYEVA, G.N.

Structural and mechanical properties of bitumens from various
sources. Part 1: Viscosity, thermal and mechanical properties of
road bitumens of various chemical compositions. Koll.zhur. 23
no.6:718-725 N-D '61. (MIRA 14:12)

1. Vsesoyuznyy dorozhnyy nauchno-issledovatel'skiy institut, Moskva.
(Bitumen)

VOLYNSKAYA, V.A., kandidat meditsinskikh nauk; BUGAYEVA, G.P.

Clinical characteristics of measles in newborn infants. *Pediatrics*
39 no.5:52-54 S-0 '56. (MIRA 10:1)

1. Iz kliniki detskikh infektsionnykh bolezney (zav. - prof. D.D.
Lebedev) II Moskovskogo meditsinskogo instituta i iz detskoy klini-
cheskoy bol'nitsy No. 1 (glavnyy vrach Ye.V.Porkhorovich)
(MEASLES, case reports,
in newborn inf. (Rus))

BUGAYEVA, I.V., otdinator

(MLRA 9:9)

Ophthalmomyiasis. Oft.zhur. 11 no.1:59-60 '56.

1. Iz glaznoy kliniki (zav. - doktor med. nauk M.N.Bugulov)
Severo-Osetinskogo meditsinskogo instituta.
(EYE--DISEASES AND DEFECTS)
(MYIASIS)

BUGAYEVA, I.V.; ROMANOV, N.N.

Topography of the upper cloud boundary. Meteor. i gidrol. (MIRA 15:6)
no.7:40-45 J1 '62. (Clouds)

ACCESSION NR: AT4030528

S/0000/63/000/000/0065/0071

AUTHOR: Bugayeva, I. V.; Burkova, M. V.; Dzholdshio, V. A.; Dzhurayev, A. D.;
Neushkin, A. I.; Ovcharenko, V. P.; Petrosyants, M. A.; Romanov, N. N.; Emma, Z. G.

TITLE: On the upper cloud boundary along Tashkent-Moscow route according to observations from TU-104 passenger aircraft

SOURCE: Nauchnaya konferentsiya po aviatsionnoy meteorologii. Moscow, 1960.
Materialy*. Moscow, Gidrometeoizdat, 1963, 65-71

TOPIC TAGS: TU-104 aircraft, cloud boundary, flight condition, troposphere, stratosphere, jet stream

ABSTRACT: This paper is one of 13 previously unpublished reports of the 40 papers given at the Nauchnaya konferentsiya po voprosam aviatsionnoy meteorologii (scientific conference on problems of aviation meteorology) that was held in June and July of 1960 in Moscow at the Glavnoye upravleniye gidrometeorologicheskoy sluzhby* SSSR. In this paper the authors present some visual weather observations made from aircraft and the results of their processing. Reports from TU-104 crews along the Tashkent-Moscow route, made during the period of 16 Sep 58 through 31 Dec 59, and airborne observations of a group of Tashkent meteorologists, made in two series of flights

Cord 1/2

ACCESSION NR: AT4030328

(Oct-Dec 59 and Mar-Apr 60) in TU-104 aircraft along the same route, served as the raw data. Results of these observations are given in graphs. 248 research flights made in the warm half of the year, have shown a principle difference between the frontal stratocumulus clouds and the same clouds in extrafrontal zones, located in the central, western, and northwestern regions of deep seated, well developed cyclones. This difference is shown. Frontal stratocumulus clouds have an upper boundary of 2 to 3 times greater than stratocumulus clouds in central, western and especially northwestern sections of deep seated, well developed cyclones. In these portions of the cyclones the ascending currents are caused by friction convergence which in any stage of the cyclone do not extend high enough and even at levels of from 2 to 4 km alternate with intense descending movements. Orig. art. has 2 figures.

ASSOCIATION: none

SUBMITTED: 18Feb63

DATE ACQ: 17Apr64

ENCL: 00

SUB CODE: AS

NO REF SOV: 000

OTHER: 000

Cord 2/2

ACCESSION NR: AT4031118

8/2648/63/000/010/0067/0087

AUTHOR: Romanov, N. N.; Bugayeva, I. V.

TITLE: Synoptic-statistical characteristics of flight conditions relative to clouds

SOURCE: Tashkent. Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut. Trudy*, no. 10(25), 1963. Voprosy* aviatsionnoy meteorologii (Problems in aviation meteorology), 67-87

TOPIC TAGS: meteorology, aviation meteorology, cloud, troposphere, aircraft turbulence, atmospheric physics

ABSTRACT: An analysis has been made of 8,000 reports submitted by aircraft crews concerning flight conditions relative to clouds. It has been determined that the use of data from only high-level aircraft is inadequate for such a study; reports from all levels of the troposphere are required. The massiveness of available data forced the author to base the study on data available at Vnukov, aerometeorological information applying primarily to the central regions of the European SSSR for January-May and August-October 1959. Findings have been summarized in 14 tables: 1 - Forms of pressure fields and fronts encountered; 2-3 - Flight conditions relative to clouds in different synoptic situations; Cord 1/4

ACCESSION NR: AT4031118

4 - Flight conditions relative to clouds in troughs; 5 - Flight conditions relative to clouds in ridges; 6 - Flight conditions relative to clouds in the planetary high-level frontal zone; 7 - Flight conditions relative to clouds during warm and cold advection and divergence-convergence (at the 300-mb level); 8 - Flight conditions relative to clouds in high-level troughs; 9 - Flight conditions relative to clouds in high-level ridges; 10 - Reports on flight conditions relative to clouds in cyclones and anticyclones; 11 - Flight conditions in well-developed cyclones; 12 - Flight conditions at levels of 8-12 km (relative to clouds) and surface pressure (in mb) at centers of cyclones and anticyclones, reduced to sea level; 13 - Flight conditions during various pressure trends in flight area; 14 - Flight conditions associated with precipitation in flight area. A special section of the report deals with a method for mapping the topography of the upper cloud boundary for typical synoptic situations; Fig. 1 of the Enclosure is an example of the mapping of such situations. The vast amount of data available from aircraft flights can be highly useful in making aeroclimatic generalizations; the approximate character of much of this information is compensated by its bulk. Such data are scattered widely throughout the country at various meteorological establishments; there should be a central office for collection and automatic processing of this information. Orig. art. has: 1 figure and 14 tables.

Card 2/4₂

ACCESSION NR: AT4031118

ASSOCIATION: Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskiy
institut (Central Asian Hydrometeorological Scientific Research Institute)

SUBMITTED: 00

DATE ACQ: 10Apr64

ENCL: 01

SUB CODE: ES,AA

NO REF SOV: 000

OTHER: 000

Card 3/4

BUGAYEVA, I.V.; ROMENOV, N.N.

Possibilities of evaluating the weather forecasting of aviation routes based on observations of airplanes crews. Trudy Sred.-Az. nauch.-issl. gidrometeor. inst. no.10:61-66 '63.

Synoptic and statistical characteristics of the conditions governing flight as related to the clouds. Ibid.:67-87

Aerosynoptic conditions governing the height of the upper boundary of clouds on the route from Tashkent to Moscow. Ibid.:88-115

Some general data on the upper boundary of clouds in high aviation routes; based on observations of airplane crews. Ibid.:116-123 (MIRA 17:6)

ACCESSION NR: AT4031119

S/2648/63/000/010/0088/0115

AUTHOR: Bugayeva, I. V.; Romanov, N. N.

TITLE: Aerosynoptic conditions of the height of the upper cloud boundary along the Tashkent-Moscow air route

SOURCE: Tashkent. Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskii institut. Trudy*, no. 10(25) 1963. Voprosy* aviatsionnoy meteorologii (Problems in aviation meteorology), 88-115

TOPIC TAGS: meteorology, cloud, cloud boundary, cloud boundary height, atmospheric front, atmospheric pressure field, tropopause, atmospheric advection, aviation meteorology

ABSTRACT: A report has been published on the results of an aerosynoptic analysis of a large number (1,550) of flight reports collected along the Tashkent-Moscow air route by crews of TU-104 and IL-18 aircraft with respect to the height of the upper cloud boundary (at levels 5 to 12 km, with most data broken down by 1-km levels). There is a discussion of the characteristic heights of the upper cloud boundary along fronts, in different forms of pressure field, and in relation to advection of different signs, the position of the tropopause and other factors.

Cord 1/3

ACCESSION NR: AT4031119

The data are broken down by warm and cold season of the year, since the upper cloud boundary differs sharply in the case of convective clouds. The titles of the tables indicate the scope of the article: Tables 1-2: Height of the upper cloud boundary in different sectors of a newly formed cyclone in the cold and warm seasons; Tables 3-4: Height of the upper cloud boundary in different sectors of a mature or occluded cyclone in the cold and warm seasons; Table 5: Height of the upper cloud boundary in different sectors of a newly formed anticyclone; Table 6: Height of upper cloud boundary in different sectors of a nearly stagnant anticyclone; Table 7: Distribution of height of upper cloud boundary over surface troughs in the cold season; Table 8: Height of upper cloud boundary in cyclones at 300-mb level in the warm season; Table 9: Height of upper cloud boundary in troughs and ridges at 300-mb level; Tables 10-11: Height of upper cloud boundary along fronts in cold and warm seasons; Tables 12-13: Height of upper cloud boundary for different (8) wind directions in cold and warm seasons; Table 14: Height of upper cloud boundary relative to the zone of maximum wind; Table 15: Height of the upper cloud boundary in zones of convergence and divergence at the 300-mb level; Table 16: Height of the upper cloud boundary for tropopause heights from 8 to 19 km; Table 17: Upper cloud boundary during certain characteristic

Card 2/3

ACCESSION NR: AT4031119

processes. A number of specific cases are discussed in detail. Orig. art. has:
10 figures and 17 tables.

ASSOCIATION: Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskii
institut (Central Asian Hydrometeorological Scientific Research Institute)

SUBMITTED: 00

DATE ACQ: 10Apr64

ENCL: 00

SUB CODE: ES

NO REF SOV: 005

OTHER: 000

Card 3/3

ACCESSION NR: AT4031120

S/2648/63/000/010/0116/0123

AUTHOR: Bugayeva, I. V.; Romanov, N. N.

TITLE: Certain general data on the upper cloud boundary along high-level air routes (as reported by aircraft crews)

SOURCE: Tashkent. Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut. Trudy*, no. 10(25), 1963. Voprosy* aviatsionnoy meteorologii (Problems in aviation meteorology), 116-123

TOPIC TAGS: meteorology, aviation meteorology, cloud, cloud boundary, troposphere

ABSTRACT: A report has been published providing data on flights by TU-104 and IL-18 aircraft above clouds, in clouds and along the upper cloud boundary along the Tashkent - Moscow air route during the period from September 1958 through October 1960. A lesser amount of similar data is provided on the basis of information obtained along other air routes. The analysis was based on about 12,000 reports representing observations at specific points and about 2,000 reports describing dominant or generalized conditions. Tables 1 and 2 in the text give information on flights above clouds and at the upper boundary of clouds (between Tashkent and Moscow); the upper boundary at any place along the route can be as high as 12 km.

Cord. 1/2

ACCESSION NR: AT4031120

It is noted that Table 1 cannot be interpreted as the probability of flight above clouds along different parts of the route and Table 2, which gives the frequency of occurrence of the upper cloud boundary for the warm and cold seasons, cannot be used to judge the predominant position of the upper cloud boundary along any part of the route. Data show that in the warm half-year the upper boundary of nonconvective clouds is 1.5-2 km higher than in the cold half-year. Certain additional characteristics of cloud distribution in the upper troposphere are given in Table 4, which gives data for flights in and outside clouds. Table 5 gives data of this type for the Novosibirsk - Tashkent and Tbilisi - Tashkent routes, as well as for the Moscow - Tashkent route. Table 6 gives the mean heights of the upper cloud boundary for flights at different times of day (during three 6-hour intervals. Diurnal variation of cloud boundary height is greatest in summer, when even the mean values of height of the upper cloud boundary increase by 1.5-2 km during the second half of the day (in some cases the increase is even greater). Orig. art. has: 6 tables.

ASSOCIATION: Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskii institut (Central Asian Hydrometeorological Scientific Research Institute)

SUBMITTED: 00

DATE ACQ: 10Apr64

ENCL: 00

SUB CODE: ES

NO REF SOV: 000

OTHER: 000

Card 2/2

BUGAYEV, M. N.

Neonocystitis in newborn infants and its cause, diagnosis, and treatment. Sber. nauch. trud. SOGM: no. 14:143-147 '65.

(MIRA 18:9)

1. Petskaya gorodskaya bol'nitsa Ordzhonikidze (nauchnyy rukovoditel' - prof. M.N. Bugulov).

BUGAYEVA, M.

Concentrate the attention on rural life. Sov.foto 22 no.6:9-11
Je '62. (MIRA 15:6)
(Journalism, Pictorial) (Farm life)

BUGAYEVA, M.

"For the Socialist Photography;" results of the International
Photography Contest. Sov.foto 22 no.4:5, 17 Ap '62.
(MIRA 15:4)

(Photography--Competitions)

BUGAYEVA, M.

"World Press Photo" at the Hague. Sov.foto. 23 no.2:12-14 F '63.
(MIRA 16:4)

(Photography—Exhibitions)

SOV/137-59-1-450

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 56 (USSR)

AUTHOR: Bugayeva, M. F.

TITLE: Integral Utilization of Sulfide Products Resulting From the Concentration of Ores of the Alys-Khaya Deposits (Kompleksnoye ispol' zovaniye sul'fidnykh produktov obogashcheniya rudy mestorozhdeniya Alys-Khaya)

PERIODICAL: Tr. Vses. Magadansk. n.-i. in-ta - I M-va tsvetn. metallurgii SSSR, 1957, division 4, Nr 21, pp 13-21

ABSTRACT: Polymetallic ore of the Alys-Khaya deposits contains Sn, W, Au, Ag, Cu, Co, Pb, Se, Te, and In. A technology was developed which includes a series of consecutive operations designed to attain segregation of all metals. The sulfide product obtained during concentration is subjected to oxidation roasting at 600°C. A paste (solid-to-liquid ratio=4:1) prepared from cinder and 40% H₂SO₄ was heated to a temperature of 240° for a period of 6 hours, and the clinker was then roasted at 600°. The sulfate clinker was leached with water at a solid-to-liquid ratio of 1:3. The head solutions contaminated by As and Fe were purified by means of limestone. Co-Cu cakes were extracted from the refined solutions with the aid of limestone or alkali

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SOV/137-59-1-450

Integral Utilization of Sulfide Products Resulting From the Concentration (cont.)

hydroxide, the Ag and Au being removed from the leaching residue by means of cyaniding. The Pb contained in the cyanidation residue was extracted into solution by means of a saturated solution of NaCl. 92% Co, 90% Cu, 75-77% Au, ~90% Ag, and 95% Pb were extracted. Bibliography: 8 references.

V. S.

Card 2/2

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PROCESSES AND PROPERTIES INDEX

Oxidation-reduction processes in inflammatory foci of mucous membranes. V. V. Kovalski, M. G. Bugayova and O. M. Glezina. *Ukrain. Biochem. Zhur.* 9, 381-5 (in English, 389) (1930).—The method of E_h detn. in physiol. conditions is quite applicable to the study of dynamics of the pathol. process. The inflammatory process of the mucous membrane of rabbit lip is characterized by a considerable shift of the oxidation-reduction processes expressed by E_h potential. Application of mustard gas to the mucous membrane causes a rapid fall of E_h , followed by a slow rise and approach to normal. A divergence between the clinical picture and the E_h value is observed. E. E. Stefanowsky.

438-31A METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND DIGITS										3RD AND 4TH DIGITS									
PROCESSES AND PROPERTIES INDEX																			
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<p>Regulation of organic metabolism by the upper sympathetic ganglion of the neck. R. M. Smol'nikov and M. Goshingava (Ukrain. Research Inst. Stomatol., Kharkov). <i>Byull. Eksp. Biol. Med.</i> 11, 112-113 (1911).</p> <p>After extirpation of the upper sympathetic ganglion of the neck in young dogs, teeth showed no change in mineral composition (Ca, Mg, and P), but there was a fairly regular (up to 30%) increase of the organic constituents. G. M. Kosolapoff</p>																			
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BUGAYEVA M. G. and NIKITIN S. A.

*Experimental caries in white rats (Russian text) STOMATOLOGIJA 1954/1 (9-17) illus. 6

The generally used caries-producing diets are unable to produce any caries lesions in white mice. A diet poor in lysine and arginine and vit. B1, but rich in carbohydrates, did not produce caries in white rats, while a diet containing all necessary substances for maintaining life processes but of a denatured and alien composition in comparison with the ordinary food of animals, quickly produces enamel caries especially in female white rats. The second litter from a mother held on a caries-producing diet will have a 100% more pronounced caries disposition than rats from healthy parents.

Eggers Lura - Holbaek

SO: Excerpta Medica - Section II, Vol. 7, No. 12

Iz patofiziologicheskogo otdela Odesskogo nauchno issledovatel'skogo instituta stomatologii (direktor - starshiy nauchnyy sotrudnik M. N. Kukhareva).

NIKITIN, S.A., professor; BUGAYEVA, M.G., starshiy nauchnyy sotrudnik.

Peculiarities of the development of tooth decay in laboratory rats during a prolonged diet which favors dental caries.
Stomatologiya 35 no.6:3-7 N-D '56 (MLRA 10:4)

1. Iz patofiziologicheskogo otdela Odesskogo nauchno-issledovatel'skogo instituta stomatologii (dir.-strashiy nauchnyy sotrudnik M.N. Kukhareva)

(DIET) (TEETH--DISEASES)

USSR/Human and Animal Physiology - Digestion.

T-7

Abs Jour : Ref Zhur - Biol., No 7, 1958, 31791

Author : Bugayeva, M.G.

Inst :

Title : Influence of Chronic Irritation of the Lower Alveolar
Nerve on the Condition of Teeth and Parodontium in Dogs.

Orig Pub : Tr. Ukr. in-ta stomatol., 1957, vyp. 2, 98-102.

Abstract : No abstract.

Card 1/1

BEGEL'MAN, I.A.; BUGAYEVA, M.G.; BLANK, L.A.

Materials on the problem of caries; results of experimental studies.
Stomatologiya 39 no.6:3-13 N-D '60. (MIRA 15:1)

1. Iz Odesskogo nauchno-issledovatel'skogo instituta stomatologii
(dir. - starshiy nauchnyy sotrudnik A.I. Marchenko).
(TEETH DISEASES)

BUGAYEVA, M.I.; KURAKOV, P.I.; MIKOIAYEVSKAYA, L.Yu.

Tracheobronchoscopy in tuberculosis in elderly persons. Trudy
TSIU 63:49-55 '63. (MIRA 17:9)

1. Kafedra tuberkuleza TSentral'nogo instituta usovershenstvo-
vaniya vrachey.

BUGAYEVA, M. I., ^dCan Med Sci -- "On the inter^{relation between}connection tuber-
culosis of the large bronchi and the effectiveness of med-^{icinal}
~~icinal~~ pneumothorax in pulmonary tuberculosis." Mos, 1961.
(Second Mos State Med Inst im N. I. Pirogov) (KL, 8-61, 259)

- 437 -

AZIZYAN, A.K.; ANDRIYANOV, B.V.; BARASHEV, P.R.; BUGAYEVA, M.I.; VASIL'YEV, N.I.; DENISOV, N.N.; ZASLAVSKIY, B.Ye.; OSTROUMOV, G.N.; TYUPAYEV, A.S.; ADZHUBEY, A.I., red.; GORYUNOV, D.P., red.; IL'ICHEV, L.F., red.; SATYUKOV, P.A., red.; SIVOLOBOV, M.A., red.; SKURIDIN, G.A., red.; TOIMACHEV, A.V., red.; DANILINA, A.I., tekhn. red.

[Dawn of the outer space era] Utro kosmicheskoi ery. Moskva, Gospolitizdat, 1961. 762 p. ____ [Phonograph record "World flight to the stars. Soviet man in outer space;" report] Gramofonnaia plastinka "Vsemirnyi reis k zvezdam. Sovetskii chelovek v kosmose"; reportazh. (MIRA 14:10)

1. Redaktsiya gazety "Pravda" (for Azizyan, Denisov). 2. Komitet po radioveshchaniyu i televideniyu (for Andriyanov). 3. Redaktsiya gazety "Komsomol'skaya pravda" (for Barashev). 4. Redaktsiya gazety "Sovetskoye foto" (for Bugayev). 5. Redaktsiya gazety "Krasnaya zvezda" (for Vasil'yev). 6. Gosudarstvennoye izdatel'stvo politicheskoy literatury (for Zaslavskiy). 7. Redaktsiya gazety "Izvestiya" (for Ostroumov). 8. Telegrafnoye agenstvo SSSR (for Tyupayev). (Astronautics)

BUGAYEVA, M.I.

Bronchial tuberculosis in adolescents. Sov.med. 25 no.6:109-115 Je
'61. (MLA 15:1)

1. Iz kafedry tuberkuleza Tsentral'nogo instituta usovershenstvovaniya
vrachey (zav. - prof. A.Ye. Rabukhin, nauchnyy rukovoditel' prof.
A.N.Voznesenskiy) na baze Moskovskoy gorodskoy tuberkuleznoy bol'nitsy
No.3 "Zakhar'ine" (glavnyy vrach V.P.Petrik).
(BRONCHI--TUBERCULOSIS)

BUGAYEVA, M.I.

Tuberculosis of the main bronchi in patients with artificial pneumothorax. Probl. tuberk. 41 no.2:46-50 '63 (MIRA 17:2)

1. Iz kafedry tuberkuloza (zav. - prof. A.Ye. Rabukhin) na baze bol'nitsy "Zakhar'ino" (glavnyy vrach V.P.Petrik) Tsentral'nogo instituta usovershenstvovaniya vrachey, Moskva.

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PROCESSES AND PROPERTIES INDEX																																			
<p style="margin: 0;">Oxidation-reduction processes in the inflammatory lesions of the mucous membranes. V. V. KOVACHUK, M. M. BULAKOVA and G. M. GLENNIA (Ukrainia; Biochim. J., 1964, 9, 361-366).—Inflammation of the mucous membrane of the lip of a rabbit is accompanied by a change in oxidation-reduction processes, measured directly as E_p. Application of mustard gas to this membrane is accompanied by a fall in E_p, followed by a slow rise towards normal. This differs from the clinical picture. F. A. A.</p>																																			
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YERKO, V.F.; BUGAYEVA, N.I.

Spectrographic determination of iron, aluminum, calcium, magnesium, copper, and nickel in metallic manganese of high purity. Fiz.sbor. no.4:490-491 '58. (MIRA 12:5)

1. Fiziko-tekhnicheskii institut AN USSR, Khar'kov.
(Manganese—Spectra)

LIFSHITS, Ye.V.; BURMAYEVA, N.I.

Spectrum analysis of chromium for impurity content. Fiz.
shor. no.4:491-493 '58. (MIRA 12:5)

1. Fiziko-tekhnicheskiy institut AN USSR, Khar'kov.
(Chromium--Spectra)

5 (2), 24 (7)

AUTHORS: Lifshits, Ye. V., Bugayeva, N. I.

SOV/32-25-8-17/44

TITLE: Spectrum Analysis of Chromium for Establishing Its Contents of Impurities

PERIODICAL: Zavodskaya laboratoriya, 1959, Vol 25, Nr 8, pp 952 - 954 (USSR)

ABSTRACT: L. N. Mosova participated in the present paper. An analysis method has been elaborated for metallic chromium (I) with a spectrograph of medium dispersity. The determination of impurities (Im) which are difficultly volatile, is effected by directly fractionated evaporation of the sample in a dc arc (DA), and that of the readily volatile (Im) by enrichment according to the evaporation method (Ref 1). The (I)-sample is transformed into chromium oxide (II) before the determination. It was established that Cd, Bi, Pb, Sn, and Sb evaporate considerably faster in the first 5-20 seconds from the crater of the carbon electrode in the (DA) than the basic substance. Al, Fe, Si, Ni, and Mg evaporate in the same way as does (I) during a longer time period. Two series of standard samples (SS) are being used, one for the determination of Fe, Al, Si, Ni, Co, Mg, Cu, Be, and larger quantities of readily volatile (Im),

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Spectrum Analysis of Chromium for Establishing Its Contents of Impurities SOV/32-25-8-17/44

the other series for the (I)-analysis of readily volatile (Im). The article contains descriptions of the following: preparation technique of the (SS) and the samples, analytical lines, sensitivity and determination accuracy of the analysis (Table). The purity of alumothermic (I) was made for the elements Al, Fe, and Si. (I) served as inner standard and nickel was also investigated. An ISP-22 spectrograph was used. For the determination of readily volatile (Im) the above-mentioned method was applied (Refs 1,2), the metal sample was transformed into its oxide. The evaporation temperature of 1500° proved to be the most favorable; they used an evaporator system FIAN and an ISP-22 spectrograph. From 1955 to 1957 several (I) analyses were made according to the developed method. The determination accuracy is given with a probable mean error of approximately 12%. There are 2 figures, 1 table, and 3 Soviet references.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk USSR (Institute of Physics and Technology of the Academy of Sciences, UkrSSR)

Card 2/2

YERKO, V.F. [Ierko, V.F.]; LIFSHITS, Ye.V. [Lifshyts', IE.V.];
KONONALOV, V.G. [Konovalov, V.H.]; DUBINSKIY, I.G. [Dubyns'kyi, I.H.];
BUGAYEVA, N.I. [Buhaiova, N.I.]

Spectrum analysis of magnesium-beryllium alloys. Ukr.fiz.zhur. 6 no.6:
837-842 N-D '61. (MIRA 16:5)

1. Fiziko-tekhnicheskii institut AN UkrSSR, Khar'kov.
(Magnesium-beryllium alloys—Spectra)

BUGAYEVA, N.I.; MIRONENKO, L.K.

Spectrophotometric determination of beryllium in magnesium alloys.
Zav.lab. 30 no.4:419 '64. (MIRA 17:4)